

## REMARKS

The Official Action dated July 18, 2003 has been carefully considered. Accordingly, the following remarks are believed sufficient to place the present application in condition for allowance. Reconsideration is respectfully requested.

In response to the Official Action dated July 18, 2003 in the above-referenced application, Applicants request reconsideration of the patentability of the claims in view of the Declaration under 37 C.F.R. 1.132 submitted herewith and the following remarks.

In the Official Action, the Examiner rejected claims 1-6, 9, 10, 12-17 and 39 under 35 U.S.C. §103 as being unpatentable over Brown et al. (U.S. Patent No. 6,071,566). The Examiner asserted that Brown et al. teach applying a mixture of silanes to a metal substrate in order to facilitate subsequent application of a paint layer. The Examiner noted that Brown et al. do not exemplify Applicant's composition, but teach using a two component aqueous mixture. The Examiner asserted it would be expected that the aqueous mixtures of silanes of Brown et al. would inherently contain some partially hydrolyzed groups. The Examiner asserted it would have been obvious to one of ordinary skill in the art to utilize a mixture of bis (trimethoxysilylpropyl) amine and vinyl silane as disclosed by Brown et al in order to effectively treat a metal substrate.

However, as will be set forth in detail below, it is submitted that the methods of claims 1-6, 9, 10, 12-17 and 39-40 are non-obvious over and patentably distinguishable from the teachings of Brown et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

To establish prima facie obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art, *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1971). It is well settled that to support a rejection under 35 U.S.C. §

103(a), a reference must provide an enabling public disclosure, i.e., it must place the claimed invention in the possession of the public, *In re Payne*, 203 U.S.P.Q. 245 (CCPA 1979).

Applicants can rebut a prima facie case of obviousness based on overlapping ranges by showing the criticality of the claimed range. "The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. . . . In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range." *In re Woodruff*, 919 F.2d 1575, 16 USPQ.2d 1934 (Fed. Cir. 1990). As disclosed in the Declaration of Dr. Win van Ooij, the additional experiments demonstrate the unexpected results showing criticality of the silane ratios of the present invention. In fact, the teachings of Brown et al. are directly contrary to the silane ratios of claims 1, 39 and 40 of the present invention. Specifically, Brown et al. disclose that the preferred ratio of vinyl silanes to multi-silyl-functional silanes is 1:2. In contrast, Applicants have shown that, for mixtures of a vinyl silane and a bis-silyl aminosilane, the ratio is preferably at least about 1 (claim 1), more preferably at least about 4 (claim 39), and most preferably at least about 9 (claim 40).

References that teach away cannot serve to create a prima facie case of obviousness. *In re Gurley*, 27 F.3d 551, 553, 31 U.S.P.Q.2d 1130, 1132 (Fed. Cir. 1994). In view of the failure of Brown et al. to teach, disclose or suggest a ratio of vinyl silanes to bis-silyl aminosilane of at least 1, Brown et al. do not support a rejection of claims 1-6, 9, 10, 12-17 and 39-40 under 35 U.S.C. §103. Reconsideration is respectfully requested.

In the Official Action, claim 40 was rejected under 35 U.S.C. § 112, first paragraph as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors had possession of the claimed invention. The Examiner asserted that claim 40 is broader and covers combinations

of other compounds at ratios of 9:1 or more. The Examiner asserted the claim encompasses subject matter not apparently envisaged at the time of filing and is rejected on new matter grounds.

However, as will be set forth in detail below, it is submitted that the method of claim 40 is described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors had possession of the claimed invention. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

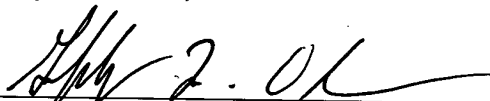
"To be enabling, the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without 'undue experimentation.'" *In re Wright*, 999 F.2d 1557, 1561, 27 U.S.P.Q.2d 1510, 1513 (Fed. Cir. 1993); see also *Amgen Inc. v. Chugai Pharms. Co.*, 927 F.2d 1200, 1212, 18 U.S.P.Q.2d 1016, 1026 (Fed. Cir. 1991); *In re Fisher*, 427 F.2d 833, 839, 166 U.S.P.Q. 18, 24 (CCPA 1970) (" [T]he scope of the claims must bear a reasonable correlation to the scope of enablement provided by the specification to persons of ordinary skill in the art.").

The Examiner's attention is directed to Pages 17 and 18 of the specification. As shown, the Applicants had possession of the claimed invention at the time of filing. As noted above, Applicants provided in the specification test data detailing the presently claimed invention including, but not limited to, silane ratios of 5:1, 6:1, 7:1, 8:1 and 9:1. One skilled in the art would agree that the scope of claim 40 bears a reasonable correlation to the scope of enablement provided by the specification. Specifically, on Page 18, lines 1-5 Applicant explicitly details an example at the claimed silane ratio of 9:1. In addition, the Examiner's attention is directed to the declaration of Dr. van Ooij filed on September 26, 2002 which provides data demonstrating that the addition of the bis-silyl aminosilanes in a mixture with vinyl silane provided unexpected corrosion performance and solution stability. Applicants have provided examples of the presently claimed invention utilizing bis-silyl "mono"

aminosilanes as well as bis-silyl diaminosilanes. Thus, Applicants have presented evidence that the presently claimed invention as defined by claim 40 is commensurate in scope with the evidence offered in the present specification and the declaration of Dr. van Ooij submitted on September 26, 2002. Reconsideration is respectfully requested.

It is believed that the above represents a complete response to the Examiner's rejections under 35 U.S.C. §§103 and 112, and places the present application in condition for allowance. Reconsideration and an early allowance are requested.

Respectfully submitted,

By 

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